

CLAIMS

1. A display apparatus for a conveyor comprising:
 - a plurality of safety devices disposed on a conveyor;
 - a display configured to indicate information relating to operational conditions of the conveyor or positions of a malfunctioned safety device;
 - a contactor for intermittently charging to a motor driving circuit of the conveyor, or changing running operation between normal and reverse running directions ;
 - a safety device detector configured to be capable shutting down a power source of the contactor, when any of the safety devices is actuated; and
 - a display controller configured to specify the operation condition of the conveyor or the actuated safety device, and providing the information to the display.
2. A display apparatus for a conveyor comprising:
 - a plurality of safety devices disposed on a conveyor;
 - a display configured to indicate information relating to operational conditions of the conveyor or positions of a malfunctioned safety device;
 - a contactor for intermittently charging to a motor driving circuit of the conveyor, or changing running operation between normal and reverse running directions ;
 - a safety device detector configured to be capable shutting down a power source of the contactor, when any of the safety devices is actuated;
 - a binary signal means configured to generate a binary signal which specifies the operation condition of the conveyor or the actuated safety device; and
 - a display controller configured to determine a indication to be displayed in compliance with a combination of introduced binary signals, and providing the display signal to the display.
3. The display device for a conveyor according to claim 2,

wherein

the binary signal means includes a controller for outputting to the display controller the binary signals specifying the position of actuated safety device based on potentials of the respective safety devices, the controller also serving for controlling an operation of the conveyor; and a contact which is opened and closed in conjunction with ON/OFF of the contactor, and is connected to an input of the display controller.

4. The display device for a conveyor according to claim 3 further comprising:

a signal interrupting means for interrupting all the signals to be delivered to the display controller, upon a detection of a malfunction of the controller.

5. The display device for a conveyor according to claim 4, wherein

the signal interrupting means sends a signal informing of an occurrence of the malfunction to a monitoring panel, simultaneously with interrupting the signals introduced to the display controller.

6. The display device for a conveyor according to claim 1 or 2, wherein

the display controller has a function for encrypting a indication to be displayed.

7. The display device for a conveyor according to claim 3, wherein

the controller has a storing means for storing malfunction history data.

8. The display device for a conveyor according to claim 7, wherein

the controller has a battery as an emergency power source.

9. The display device for a conveyor according to claim 1 or 2, wherein
the display device is disposed below an entrance of a handrail at an end of a handrail panel.
10. The display device for a conveyor according to claim 9, wherein
an operation panel is disposed near the display device.